

REMARKS

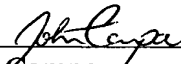
Applicant has cancelled claims 2, 3, 4 and 12-33, amended claims 1 and 5-11, and added claims 34-55. The amendments to the claims were made to correct minor informalities. Support for the added claims can be found in claims 1-33 as originally filed, at page 2, lines 1-6, and page 4, line 7 through page 7, line 21, in the above-identified patent application. As such, no new matter has been entered by way of this preliminary amendment.

In accordance with 37 CFR § 1.121, attached hereto is a marked-up copy of the changes made to the claims by the current preliminary amendment. The version with markings to show changes made is located in the attached Appendix A.

It is submitted that this case is in condition for allowance, and such allowance is earnestly solicited.

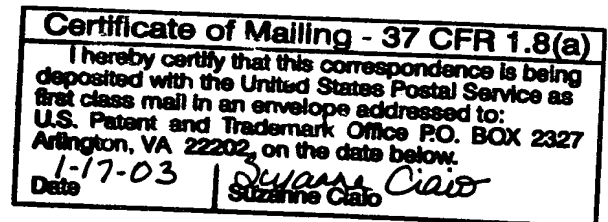
Respectfully submitted,

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Appendix A

Version With Markings to Show Changes Made

In The Claims:

Claims 2, 3, 4 and 12-33 have been cancelled.

Claims 1 and 5-11 have been amended as follows:

1. (Amended) A method for providing a display of an electronic mail collection, comprising:

forming at least [two types] one type of electronic mail message
[abbreviations] abbreviation from the electronic mail collection, the electronic mail collection
having at least one electronic mail message;

placing the at least [two types] one type of electronic mail message
[abbreviations] abbreviation in a collection viewing cascade;
receiving a selected level for viewing; and
displaying the collection viewing cascade at the selected level.

5. (Amended) The method of claim 1, wherein forming one type of message
abbreviation comprises:

decomposing each electronic mail message of the collection viewing cascade
into a tree structure such that [each] at least one child node represents at least one of a
sequence of first-level material from its parent and an excerpt of another message; and
decomposing sequences of first-level material into block types.

6. (Amended) The method of claim [1] 5, [wherein forming comprises] further
comprising:

determining which of the block types are [blocks] of like type[, wherein the
blocks are line-oriented text];

abbreviating within the determined blocks of like type by including only a
predetermined number of lines; and

indicating where material has been removed from each of the determined
blocks of like type by providing [elision] indicators.

7. (Amended) The method of claim [1] 5, wherein forming one type of message abbreviation comprises:

concatenating at least one sequence of prose paragraphs;
submitting the at least one concatenated sequence to a summarizer that identifies the most salient sentences in the sequence; and
determining where to insert [elision] indicators by aligning the identified sentences with the original sentences.

8. (Amended) The method of claim 1, wherein [the user selects a viewing level and wherein] the displaying further comprises [displaying the] presenting a thread structure with substantive message fragments of each message embedded within the thread structure.

9. (Amended) The method of claim 1, wherein [the user selects a viewing level and wherein] the displaying further comprises [displaying the] presenting a thread structure with a compressed text representation of each message embedded within the thread structure.

10. (Amended) The method of claim 1, wherein [the user selects a viewing level and wherein] the displaying further comprises [displaying the] presenting a thread structure with an email-adapted summary [for] of each message embedded within the thread structure.

11. (Amended) The method of claim 1, further comprising:
[receiving a user selection of a viewing level;]
displaying a first frame that displays an outline view of a thread in the collection;
displaying a view of the thread with embedded compressed-text message forms in a second frame;
[receiving a user request] requesting, in the first frame, to scroll the display in the second frame to a message selected in the first frame;
[receiving a user request] requesting to display the predecessor of the message in the second frame; and
displaying the predecessor in the first frame.

Claims 34-55 have been added as follows:

- 34. (New) A method comprising:
creating a message collection viewing cascade for presenting at least one of one or more message threads and one or more messages which are associated with one or more message threads;
abbreviating at least one of the messages associated with one of the message threads using one of a plurality of abbreviation techniques; and
formatting each abbreviated message to be displayed at one of a plurality of viewing levels in the message collection viewing cascade.--
- 35. (New) The method of claim 34 further comprising presenting each abbreviated message in the collection viewing cascade at the one or more viewing levels.--
- 36. (New) The method of claim 34 further comprising:
forming a substantive message fragment for a first message in the one or more message threads using one of the abbreviation techniques; and
formatting each message thread and corresponding substantive message fragment to be displayed in the message collection viewing cascade.--
- 37. (New) The method of claim 34 further comprising:
sorting a plurality of message threads based upon a number of messages in each message thread; and
formatting the sorted message threads to be displayed at the one or more viewing levels.--
- 38. (New) The method of claim 37 wherein sorting the message threads further comprises sorting the message threads in order of largest to smallest with respect to a number of messages in each message thread.--
- 39. (New) The method of claim 34 further comprising associating subject line information with each message thread.--
- 40. (New) The method of claim 34 further comprising:

forming a substantive message fragment for each message in one of the message threads using one of the abbreviation techniques; and

formatting each substantive message fragment of the one message thread to be displayed in the message collection viewing cascade.--

--41. (New) The method of claim 34 wherein abbreviating at least one of the messages further comprises decomposing the message into a tree structure with at least one parent node, each parent node having at least one child node, each child node representing a sequence of first-level material with respect to a corresponding parent node or representing an excerpt of another message.--

--42. (New) The method of claim 41 wherein one of the plurality of abbreviation techniques comprises:

locating an excerpt of another message in each child node for each message;

replacing each located excerpt with a set of indicators; and

forming a substantive message fragment of the one message by removing all but a set number of lines from the one message, a remaining set number of lines following each set of indicators.--

--43. (New) The method of claim 41 wherein one of the plurality of abbreviation techniques comprises:

shortening an excerpt of another message in each child node for each message;

decomposing sequences of first-level material in each child node into a plurality of blocks, each block representing one of a plurality of text types;

eliminating at least one of the blocks which include extraneous material; and

concatenating at least one shortened excerpt with at least one remaining block for each message while preserving an original order of the shortened excerpts and the remaining blocks within each message to form a compressed text form of the message.--

--44. (New) The method of claim 41 wherein one of the plurality of abbreviation techniques comprises:

shortening an excerpt of another message in each child node for each message;

decomposing sequences of first-level material in each child node into a plurality of blocks, each block representing one of a plurality of text types;
eliminating at least one of the blocks which include extraneous material;
differentially summarizing at least one remaining block based upon the text type represented by each block; and
concatenating at least one shortened excerpt with at least one summarized block for each message while preserving an original order of the shortened excerpts and the summarized blocks within each message to form an e-mail adapted summary of the message.-

--45. (New) The method of claim 34 further comprising:
receiving a selection of a viewing level with respect to viewing the message threads in the message collection viewing cascade; and
displaying at least a portion of the message threads at the selected viewing level in one of a plurality of frames in a display area.--

--46. (New) The method of claim 34 further comprising:
displaying in a first frame in the plurality of frames an outline view of one of the message threads;
displaying a view of the one message thread with embedded compressed-text message forms in a second frame;
requesting, in the first frame, to scroll the display in the second frame to one of the messages in the one message thread;
requesting, in the second frame, to display a predecessor message of the one message; and
displaying the predecessor message in the first frame.--

--47. (New) The method of claim 34 wherein each message comprises an electronic mail message.--

--48. (New) A method comprising:
creating a plurality of message threads;

sorting the message threads based upon a number of messages in each message thread; and

formatting the sorted message threads to be displayed at one or more of a plurality of viewing levels in a collection viewing cascade.--

--49. (New) The method of claim 48 further comprising associating subject line information with at least one of the message threads.--

--50. (New) The method of claim 48 wherein sorting the message threads further comprises sorting the message threads in order of largest to smallest with respect to a number of messages in each message thread.--

--51. (New) The method of claim 48 further comprising presenting the sorted messages in the collection viewing cascade at the one or more selected viewing levels.--

--52. (New) The method of claim 48 further comprising:
abbreviating at least one of the messages associated with one of the message threads using one of a plurality of abbreviation techniques; and
formatting the abbreviated messages to be displayed at one or more of the plurality of viewing levels in the message collection viewing cascade.--

--53. (New) The method of claim 52 further comprising:
forming a substantive message fragment for a first message in at least one of the message threads using one of the abbreviation techniques; and
formatting each message thread and corresponding substantive message fragment to be displayed in the message collection viewing cascade.--

--54. (New) The method of claim 48 further comprising:
receiving a selection of one of the viewing levels with respect to viewing the message threads in the message collection viewing cascade; and
displaying at least a portion of the message threads at the selected viewing level in one of a plurality of frames in a display area.--

--55. (New) The method of claim 48 wherein each message comprises an electronic mail message.--